Amd't dated August 25, 2006

Reply to Office action dated May 25, 2006

**AMENDMENT TO THE CLAIMS:** 

This listing of claims will replace all prior versions, and listings, of claims in the

application:

**LISTING OF CLAIMS:** 

1. (Currently Amended) A recliner assembly for use with a seat having a seat cushion

and a seat back pivotal between a plurality of reclined positions with respect to the seat cushion,

the recliner assembly comprising:

a fixed plate adapted to be secured to the seat cushion;

a mobile plate adapted to be secured to the seat back, the mobile plate coupled to the

fixed plate for providing pivotal movement of the seat back through the plurality of reclined

positions, the mobile plate including an annular rim defining an axis and a plurality of teeth

extending along the annular rim;

at least one sector a plurality of sectors each having a rack of teeth coupled between the

fixed and mobile plates, [[the]] each sector movable between a locked condition having the rack

of teeth engaged with the plurality of teeth of the mobile plate for maintaining the seat back in

any of the plurality of reclined positions and an unlocked condition having the rack of teeth

disengaged from the plurality of teeth of the mobile plate for allowing selective adjustment of

the seat back relative to the seat cushion; [[and]]

a cam extending about the axis and selectively engagable with [[the]] each sector and

rotatably supported between the fixed and mobile plates for moving [[the]] each sector between

the locked and unlocked conditions in response to rotation of the cam, the cam radially movable

3

5311707v.1 19365/098425

relative to [[the]] each sector for preventing binding of the sectors during movement between the

locked and unlocked conditions; and

wherein the rack of teeth of at least one sector extends between opposing radially ends of

the sector and wherein individual teeth at the ends of the sector are shorter radially compared to

adjacent teeth between the ends of the rack of teeth.

2. (Currently Amended) The recliner assembly of Claim 1 wherein the fixed plate includes

wedge surfaces formed thereon for engaging and guiding [[at least one]] each sector between the

locked and unlocked conditions.

3. (Currently Amended) The recliner assembly of Claim 1 wherein the fixed plate includes at

least one pin protruding therefrom and extending through a slot formed in the [[at least one]]

sector for guiding movement of the sector between the locked and unlocked conditions.

4. (Cancelled)

5. (Currently Amended) The recliner assembly of Claim [[4]] 1 wherein the plurality of sectors

are offset relative to each other unequally spaced about the axis.

6. (Original) The recliner assembly of Claim 5 wherein the rack of teeth of one of the plurality

of sectors is fully engaged with the plurality of teeth on the mobile plate and the rack of teeth of

the other of the plurality of sectors are partially engaged with the plurality of teeth on the mobile

plate in the locked condition.

7. (Original) The recliner assembly of Claim 5 wherein the rack of teeth of each of the plurality

of sectors is partially engaged with the plurality of teeth on the mobile plate in the locked

condition.

8. (Original) The recliner assembly of Claim 6 wherein the partially engaged sector is self-

adjusting.

4

5311707v.1 19365/098425

9. (Original) The recliner assembly of Claim 7 wherein the plurality of partially engaged

sectors are self-adjusting.

10. (Cancelled)

11. (Currently Amended) The recliner assembly of Claim 1 wherein the at least one each sector

includes a stepped cam surface formed opposite the rack of teeth.

12. (Original) The recliner assembly of Claim 11 wherein the stepped cam surface defines a

raised portion and a recess separated by a ramped surface.

13. (Currently Amended) The recliner assembly of Claim 12 wherein the at least one each

sector includes a bent arm extending outwardly from the at least one sector wherein the recess

extends between the bent arm and the ramped surface.

14. (Original) The recliner assembly of Claim 1 including a shaft having first and second ends

defining a shaft axis.

15. (Original) The recliner assembly of Claim 14 wherein at least one of the first or second

ends extends through an aperture formed in at least one of the mobile or fixed plates for rotation

of the shaft about the shaft axis.

16. (Original) The recliner assembly of Claim 15 wherein the aperture is oversized relative to

the shaft to allow a predetermined amount of radial movement of the shaft within the aperture.

17. (Currently Amended) The recliner assembly of Claim 13 wherein the cam includes arms

extending outwardly for engaging the bent arm of the at least one each sector.

18. (Currently Amended) The recliner assembly of Claim 17 wherein arms engage the raised

portion of the stepped cam surface for maintaining the at least one each sector in the locked

condition.

5

Amd't dated August 25, 2006

Reply to Office action dated May 25, 2006

19. (Original) The recliner assembly of Claim 14 wherein the cam is secured to the second end

of the shaft.

20. (Currently Amended) A recliner assembly for use with a seat having a seat cushion and a

seat back pivotal between a plurality of reclined positions with respect to the seat cushion, the

recliner assembly comprising:

a fixed plate adapted to be secured to the seat cushion;

a mobile plate adapted to be secured to the seat back, the mobile plate coupled to the

fixed plate for pivotal movement of the seat back through the plurality of reclined positions, the

mobile plate including an annular rim defining an axis and a plurality of teeth extending along

the annular rim;

at least one sector a plurality of sectors each having a rack of teeth coupled between the

fixed and mobile plates, [[the]] each sector movable between a locked condition having the rack

of teeth engaged with the plurality of teeth of the mobile plate for maintaining the seat back in

any of the plurality of reclined positions and an unlocked condition having the rack of teeth

disengaged from the plurality of teeth of the mobile plate for allowing selective adjustment of the

seat back relative to the seat cushion;

a shaft rotatably journaled to the mobile and fixed plates; [[and]]

a cam extending about the axis and selectively engagable with [[the]] each sector and

rotatably supported by the shaft between the fixed and mobile plates for moving [[the]] each

sector between the locked and unlocked conditions in response to rotation of the cam, the cam

radially movable relative to [[the]] each sector for preventing binding of the sector during

movement between the locked and unlocked conditions; and

6

Amd't dated August 25, 2006

Reply to Office action dated May 25, 2006

wherein the shaft includes a reduced diameter portion extending axially through an

aperture formed in the cam, the aperture being oversized relative to the reduced diameter portion

allowing a predetermined amount of radial movement of the cam relative to the shaft.

21-22.

23. (Currently Amended) The recliner assembly of Claim 20 wherein the cam includes at least

one pin a plurality of pins extending axially therefrom.

24. (Currently Amended) The recliner assembly of Claim [[20]] 23 including a cam driver

secured to the shaft.

25. (Currently Amended) The recliner assembly of Claim 24 wherein the cam driver includes at

least one arm a plurality of arms extending radially outwardly for engaging the at least one pin

the respective plurality of pins.

26. (Currently Amended) The recliner assembly of Claim 25 wherein the at least one each arm

engages the at least one each corresponding pin during rotation of the shaft in the unlocking

direction for rotating the cam.

27. (Currently Amended) The recliner assembly of Claim 20 wherein the cam includes arms

for engaging bent arms of the at least one each sector.

28. (Original) The recliner assembly of Claim 20 including a biasing member supported in a

recess formed in the fixed plate for biasing the cam in the locking direction.

29. (Currently Amended) A recliner assembly for use with a seat having a seat cushion and a

seat back pivotal between a plurality of reclined positions with respect to the seat cushion, the

recliner assembly comprising:

a fixed plate adapted to be secured to the seat cushion;

7

Amd't dated August 25, 2006

Reply to Office action dated May 25, 2006

a mobile plate adapted to be secured to the seat back, the mobile plate coupled to the

fixed plate for pivotal movement of the seat back through the plurality of reclined positions, the

mobile plate including an annular rim defining an axis and a plurality of teeth extending along

the annular rim;

at least one sector a plurality of sectors each having a rack of teeth coupled between the

fixed and mobile plates, [[the]] each sector movable between a locked condition having the rack

of teeth engaged with the plurality of teeth of the mobile plate for maintaining the seat back in

any of the plurality of reclined positions and an unlocked condition having the rack of teeth

disengaged from the plurality of teeth of the mobile plate for allowing selective adjustment of the

seat back relative to the seat cushion, wherein the fixed plate includes wedge surfaces formed

thereon for engaging and guiding at least one sector the sectors between the locked and unlocked

conditions; [[and]]

a cam extending about the axis and selectively engagable with each of the sectors and

rotatably supported between the fixed and mobile plates for moving the sectors between the

locked and unlocked conditions in response to rotation of the cam, the cam radially movable

relative to the sectors for preventing binding of the sector during movement between the locked

and unlocked conditions; and

wherein the plurality of sectors being unequally spaced about the axis.

8

5311707v.1 19365/098425